

Exhibit C



CHIPS®

Public Disclosure of Legal,
Governance, Risk Management,
and Operating Framework

October 2024



Responding institution:	The Clearing House Payments Company L.L.C.
Jurisdiction in which the FMI operates:	United States
Authority regulating, supervising, or overseeing the FMI:	Board of Governors of the Federal Reserve System
Date of this disclosure:	October 2024
This disclosure may be found at:	www.theclearinghouse.org/payment-systems/CHIPS

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“Fedwire” is a registered service mark of the Federal Reserve Banks.

I. EXECUTIVE SUMMARY

The Committee on Payments and Market Infrastructures (“CPMI”) and the Technical Committee of the International Organization of Securities Commissions (“IOSCO”) recognize the critical role that financial market infrastructures (“FMIs”) serve in fostering financial stability. In April 2012, CPMI¹ and IOSCO published the Principles for Financial Market Infrastructures (“PFMI”)² noting that since FMIs facilitate the clearing, settlement, and recording of monetary and other financial transactions, they can pose significant risks to the financial system if not properly managed. The PFMI serve as an international standard aimed at managing risks and promoting transparency and financial stability for FMIs.

Title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the “Dodd-Frank Act”) requires the Board of Governors of the Federal Reserve System (“Federal Reserve Board”) to prescribe rules that include risk-management standards governing the operations related to the payment, clearing, and settlement activities of certain designated financial market utilities (“FMUs”). In prescribing these standards, the Federal Reserve Board must consider relevant international standards. Consequently, the Federal Reserve Board incorporated the principles from the PFMI into its implementing regulation, Regulation HH, and requires each designated FMU to provide a comprehensive public disclosure of its legal, governance, risk management, and operating framework clearly outlining its adherence to these risk-management standards.³

On July 18, 2012, the Financial Stability Oversight Council (“FSOC”) designated The Clearing House Payments Company L.L.C. (“PayCo”), which owns and operates the Clearing House Interbank Payment System (“CHIPS®”) service, as a systemically important financial market utility (“SIFMU”)⁴ under Title VIII of the Dodd-Frank Act on the basis of its role as the operator of the CHIPS service.⁵ This designation by FSOC subjects PayCo to the supervisory framework established under Title VIII of the Dodd-Frank Act. As the Federal Reserve Board is the supervisory agency for PayCo under Title VIII, PayCo is subject to Regulation HH, which sets forth requirements and standards for SIFMUs.

This document is intended to provide relevant disclosure to key stakeholders, including CHIPS participants and other relevant entities, on PayCo’s approach to observing the standards set forth in Regulation HH in its operation of the CHIPS service. As explained in more detail herein, PayCo’s

¹ At the time of publication, CPMI was known as the Committee on Payments and Settlement Systems (“CPSS”).

² Committee on Payment and Settlement Systems, Bank for International Settlements, Principles for Financial Market Infrastructures (Apr. 2012), available at <http://www.bis.org/cpmi/publ/d101a.pdf>.

³ 12 C.F.R. § 234.3(a)(23)(iv).

⁴ SIFMU and designated FMU are used interchangeably throughout this disclosure.

⁵ Financial Stability Oversight Council, 2012 Annual Report at 145.

framework for the CHIPS service addresses Regulation HH's standards for designated FMUs through:

- a well-founded legal basis,
- a clear, transparent, and documented governance structure,
- a sound risk management framework,
- effective management of indirect⁶ liquidity risks,
- settlement finality, and
- effective management of operational risk.

⁶ There is no liquidity risk with respect to CHIPS payments. However, as explained in the discussion of Standard VII, PayCo has a robust program to manage indirect liquidity risk to its participants that may arise due to the absence or diminishing effectiveness of CHIPS liquidity efficiency.

significant issues identified. The department monitors and reports on management's corrective actions to remediate issues and ensure that the actions taken sufficiently mitigate risk.

The audit entity universe is developed by the Internal Audit department and consists of the aggregation of several unique auditable entities. The universe that has been established is based primarily on the organizational structure of PayCo. Auditable entities are subject to risk assessments that involve an assessment of the inherent risks, control environment, and emerging risks to derive a composite risk rating, which governs frequency of Internal Audit review of that entity. In addition, Internal Audit may also complete targeted and project reviews during the fiscal year. These may be horizontal or thematic reviews, reviews of specific subjects, or reviews of key PayCo project initiatives.

Chief Operating Office

The Chief Operating Office is responsible for human resources, marketing and communications, corporate real estate and facilities, and finance. The office also includes PayCo's Chief of Staff. The human resources team helps establish PayCo's people strategy and guide the direction of the firm with respect to personnel matters. The marketing team helps ensure greater consistency and strategy of PayCo's messaging and branding. The corporate real estate management team focuses on corporate footprint and sustainability efforts. The finance team handles core finance and procurement for PayCo. The Chief of Staff supports the CEO and Supervisory and Managing Board matters.

The CHIPS Service

The CHIPS service is a funds-transfer system that transmits and settles payment orders in U.S. dollars for some of the largest and most active banks in the world. The CHIPS service is one of the two major U.S. funds transfer systems that are considered high-value payment systems ("HVPS") and the only one that is privately owned. FRFS operates the other major HVPS, Fedwire Funds Service.¹⁶

Most HPVS are real-time gross settlement ("RTGS") systems that settle each payment individually as it is released to the receiving participant. The benefit of this type of settlement is that it is immediate and eliminates credit risk between the sending participant and receiving participant.

¹⁶ The Fedwire Funds Service is a real-time, gross settlement system. Each transaction is processed individually and settled upon receipt via a highly secure electronic network. Settlement of funds is immediate, final, and irrevocable. The Federal Reserve, Fedwire Funds Service, *available at* <https://www.frb services.org/financial-services/wires>. Over 4,700 participants can send or receive funds transfers over the Fedwire Funds Service. Fedwire Funds Service Product Sheet, *available at* <https://www.frb services.org/binaries/content/assets/crsocms/financial-services/wires/funds.pdf>.

The detriment of this type of settlement is that it requires a significant amount of liquidity since each payment settles separately.

The CHIPS service is a hybrid settlement system. It continuously nets payment obligations between participants (rather than netting once or periodically during the operating day) and immediately settles payments upon their release (settling net amounts rather than gross amounts). To accomplish this hybrid settlement, the CHIPS service stores inbound payments in a queue and uses a liquidity-saving algorithm to select payments from the queue for release and settlement in a liquidity efficient manner. Payments may be released individually or may be off set (bilaterally or multilaterally) and released.

The CHIPS service is primarily used to clear and settle the U.S. dollar leg of cross-border funds transfers. Based on data derived from the fourth quarter of 2023, approximately 95% of payments that clear and settle through the CHIPS service begin or end outside the U.S.¹⁷ On an average business day, the CHIPS service transmits and settles over 542,000 payment messages¹⁸ worth an aggregate of \$1.79 trillion.¹⁹

CHIPS System Key Statistics (based on 2023 annual data)²⁰	
Total Annual Dollar Amount	\$448,740,783,556,000
Average Daily Dollar Amount	\$1,794,963,134,000
Total Annual Transactions	135,523,447
Average Daily Transactions	542,094
Average Dollar Amount Per Payment	\$3,311,000

Through the year 2024, the CHIPS service has achieved its application availability target of greater than 99.97%.²¹ The year-to-date average of application availability for the CHIPS service is 100%.²²

¹⁷ This statistic is based on data derived from transactions during the specified period.

¹⁸ A “payment message” in this context is an electronic message that, when released by the CHIPS service, instructs a receiving participant to pay, or cause another bank to pay, a fixed amount of money to a beneficiary. CHIPS Rules and Administrative Procedures, Rule 1(a)(11) (effective March 11, 2024), available at https://media.theclearinghouse.org/-/media/New/TCH/Documents/Payment-Systems/CHIPS_Rules_and_Administrative_Procedures_03_01_2024.pdf?rev=2192b9738b3a4775b2f7f13a32bcc321.

¹⁹ Based on 2023 CHIPS activity. A summary of annual activity from 1970 to the last calendar year may be found PayCo’s website. See CHIPS, Annual Statistics From 1970 to 2024, available at https://media.theclearinghouse.org/-/media/New/TCH/Documents/Payment-Systems/CHIPS_volume_value_YTD_March_2024_v3.pdf?rev=d2dc9ab0676a452cbdc6aa2dd027e9f0.

²⁰ *Id.*

²¹ Based on data from January through April of 2024.

²² *Id.*

PayCo began operating the CHIPS service in 1970 with the aim of simplifying and expediting interbank payments in New York City.²³ Over the years, the CHIPS service has undergone several significant changes to its payments processing structure to better serve the financial services industry. Originally, the CHIPS service was established as a next-day settlement system among participants.²⁴ However, on October 1, 1981, it transitioned to a same-day settlement system, significantly improving the speed and efficiency of transactions.²⁵ In 2000, PayCo implemented another significant change to the CHIPS settlement process by moving from an end-of-day deferred net settlement to the current system of intraday settlement.²⁶ Under the former deferred net settlement procedure, payments were processed throughout the day, and, upon passing various bilateral and multilateral risk controls, were released with the resulting multilateral net positions finally settled at the end of the day. The new settlement process introduced in 2000 features a continuous netting design, which enable the CHIPS service to finally settle payments throughout the day. This intraday settlement process has enhanced liquidity management and reduced settlement risk and distinguishes the CHIPS service from most other HPVS that are RTGS systems that settle each payment individually as it is released to the receiving participant.

CHIPS hybrid settlement reduces the liquidity needed to settle payments relative to a real-time gross settlement system such as Fedwire Funds Service. CHIPS settlement model also enables final settlement of net positions to occur immediately upon the release of netted payments to the CHIPS receiving participant. It is designed to provide the efficiency of a netting system with the

²³ The Clearing House Interbank Payments System (CHIPS), A Recognition of its Twentieth Anniversary, 1970 – 1990, The New York Clearing House Association (1990).

²⁴ Thus, the CHIPS service was originally designed as a deferred, net settlement system. Payment systems that use this kind of settlement net payment obligations between participants and require participants to settle for their net amounts at the end of the day or at certain points during the operating day. The benefit of this type of settlement is that it takes less liquidity to settle payments since participants settle for net, rather than gross amounts. The detriment of this type of settlement is that it involves liquidity and credit risk. Receiving participants receive payments before the payments are settled. There is the possibility that participants will be unable to meet their settlement obligation at the future point in time when settlement is due (liquidity risk) or be unable to settle their obligation at all (credit risk).

²⁵ *Id.*

²⁶ In 2023 PayCo estimates that the algorithm generated an economic value for CHIPS participants and the financial system of \$4.99 billion, or \$13.8 million per day. The liquidity efficiency of CHIPS averaged 26:1 in 2023, meaning that \$1 contributed to the network in funding supported \$26 in settled value, with most payments settling in mere seconds. This contrasts with the average of 6.6:1 liquidity efficiency in other major large-value payment systems around the world. *See* James McAndrews & Dean Vartin, *The Use of Liquidity in CHIPS*, at 2 (Apr. 2022), available at https://media.theclearinghouse.org/-/media/New/TCH/Documents/Payment-Systems/CHIPS_Liquidity_Algorithm_April_2022.pdf?rev=4b5d1cc768ac4de38fcca14de63263d1&hash=5F76D821581C74E0F95FB76D5B0E845D; FNA, *Assessing the Efficiency of CHIPS: FNA Simulation prepared for The Clearing House* (January 2023), available at https://media.theclearinghouse.org/-/media/New/TCH/Documents/Payment-Systems/FNA_CHIPS_Review_Public_Distribution_January_2023.pdf?rev=def326787ed942b8b4da5ae6be7db3bd&hash=397A2559090DA4265C61899DA2000B83.

finality of a real-time gross settlement system. Hence, the CHIPS service is unique among HVPS as it provides its participants with both liquidity efficiency and immediate, final settlement.

The CHIPS service has operated in a reliable manner, settling payments and distributing end-of-day positions, even during financial crises, the terrorist attacks of September 11, 2001, the COVID-19 pandemic, and natural disasters. As of April 8, 2024, there were 41 CHIPS participants.²⁷ CHIPS participants are U.S. commercial banks or foreign banks with a U.S. branch or agency.

Legal and Supervisory Frameworks

As more fully discussed in Standard I (Legal Basis), there is a comprehensive and clear legal framework that applies to the CHIPS service and CHIPS payments that consists of both federal and state statutes and contractual terms. More specifically, Article 4-A of the New York Uniform Commercial Code (“U.C.C.”) and the CHIPS Rules and Administrative Procedures (“CHIPS Rules”) serve as the legal foundation of the CHIPS service with federal bank resolution laws providing important additional protections. Other U.S. laws and regulations may affect the CHIPS payments, such as the Electronic Fund Transfer Act relating to consumer remittance transfers or the CHIPS service, such as the netting provisions of the Federal Deposit Insurance Corporation Improvement Act of 1991 (“FDICIA”).

As noted above, FSOC designated PayCo as a SIFMU based on its operation of the CHIPS service. This subjects PayCo to the supervisory framework established under Title VIII of the Dodd-Frank Act and means PayCo is subject to continuous supervision by the Federal Reserve Board for its operation of the CHIPS service. The Federal Reserve Board’s role includes setting and enforcing risk management standards, conducting regular examinations, and requiring SIFMUs to take corrective action, if necessary. PayCo is also supervised under the Federal Financial Institutions Examination Council’s (“FFIEC”) significant service provider program in connection with the provision of services, including services related to the CHIPS service, to financial institutions.

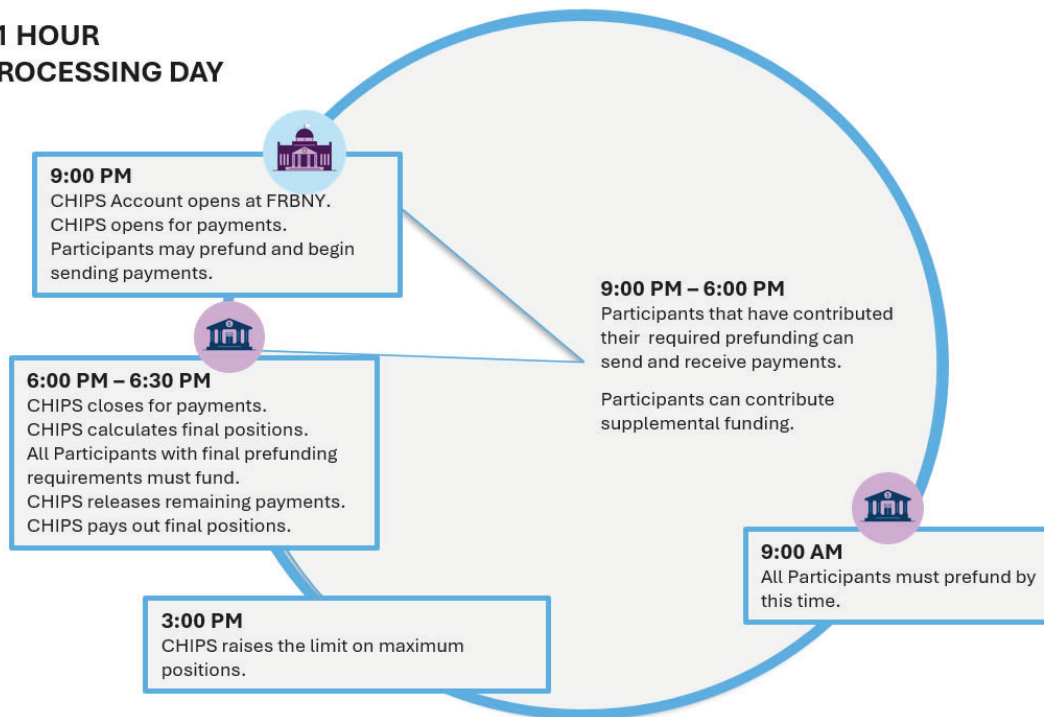
²⁷ Appendix A contains a list of CHIPS participants.

System Design and Operation

Figure 2. How CHIPS Works

How CHIPS Works

21 HOUR PROCESSING DAY



Prefunding and Prefunded Positions

Each CHIPS operating day, each CHIPS participant must arrange to have a predetermined amount deposited into the CHIPS Prefunded Balance Account maintained by the Federal Reserve Bank of New York (“FRBNY”).²⁸ The amount required at the opening of the CHIPS service is referred to as a participant’s “opening position requirement”.²⁹ A participant cannot send a CHIPS payment until it has satisfied its opening position requirement. A participant cannot receive a CHIPS payment until it sends a CHIPS payment.³⁰

²⁸ For more information about the CHIPS Prefunded Balance Account, see Standard IX (Money Settlements).

²⁹ CHIPS Rule 12(b)(1)(B). A participant’s opening position requirement amount is determined by a formula “reasonably designed to facilitate the [CHIPS payment message] release methodology.” CHIPS Rule 12(b)(1)(A). The opening position requirement is recalculated weekly. A participant may also request and PayCo in its sole discretion may agree that a participant may have a predetermined opening position; however, it may not be less than the system-calculated position. *Id.*

³⁰ CHIPS Rule 2(c)(2)(B).

Once a participant has provided its opening position requirement, it is permitted to transfer additional funds (its “initial supplemental position”) to the CHIPS Prefunded Balance Account.³¹ There is no limit on the amount that a participant may add as supplemental funding, and participants may continue to add supplemental funding throughout the day until the end-of-day closing procedure begins.

The amounts deposited in the CHIPS Prefunded Balance Account are recorded as the participant’s positions on the CHIPS ledger. Specifically, the CHIPS service maintains separate records of each participant’s (i) opening primary position³² and any increases or decreases to the opening primary position resulting from sending or receiving payment messages (its “current primary position”³³); (ii) initial supplemental position,³⁴ including any increases or decreases to the initial supplemental position resulting from sending or receiving payment messages and any additions to or withdrawals from the supplemental position (the initial supplemental position, including these increases and decreases, is called the “current supplemental position”³⁵); and (iii) a “combined position,”³⁶ which is the sum of the current primary position and the current supplemental position.

For simplicity, this disclosure will refer generically to a participant’s “prefunded position” when there is not a need to distinguish between the current, supplemental, or combined position.

Payment Processing

A CHIPS participant sends a payment message to the CHIPS service in an ISO 20022 structured format through one of two multiprotocol label switching (“MPLS”) private networks that are operated by different telecommunications carriers. PayCo offers CHIPS participants industry standard methods of authenticating and securing messages exchanged between the CHIPS service and its participants. Additional measures were added with the migration to ISO 20022 messages. While the details of these protocols are available to CHIPS participants, they are not published here for security reasons.

Upon receipt of a payment message, the CHIPS service performs XML schema validation checks to ensure each message meets certain requirements under the message usage guidelines established for the CHIPS service. If the message fails that validation check, it will be rejected. If it passes the XML validation check, it is passed to the CHIPS core processor for additional system syntax checks. Any payment message that does not pass those syntax checks will be rejected. A payment message that passes both XML schema validation and the additional system syntax checks will be placed in a queue where a computer algorithm determines whether to release it to

³¹ CHIPS Rule 12(c)(1).

³² CHIPS Rule 12(b)(1)(D).

³³ CHIPS Rule 12(b)(2).

³⁴ CHIPS Rule 12(c)(1).

³⁵ CHIPS Rule 12(c)(2).

³⁶ CHIPS Rule 12(d)(1).

the receiving participant. The payment message is released if the algorithm determines that the payment message can be settled within the parameters set by the CHIPS Rules.³⁷

More specifically, the CHIPS service controls the release of payment messages to ensure that no participant's prefunded position ever falls below zero.³⁸ In addition, the release of payment messages is controlled to prevent any receiving participant from accumulating liquidity to a degree that could cause an imbalance in the availability of liquidity that hinders the system's ability to release payment messages efficiently. To achieve this, payment messages will not be released to a participant if the receipt of payment messages would cause the receiving participant's current primary position to exceed a multiple of its opening primary position ("maximum current primary position").³⁹

Under the CHIPS Rules, the release of a payment message obligates the sending participant to pay the amount of the payment message to the receiving participant. Settlement of this obligation takes place simultaneously with the release of the payment message by a debit to the position of the sending participant on the CHIPS ledger and an identical credit to the position of the receiving participant on the CHIPS ledger.

A participant's position on the CHIPS ledger represents a contingent claim against all of the other CHIPS participants to get paid the amount of the ledger position at the close of the CHIPS operating day, if any, exclusively from the balance in the CHIPS Prefunded Balance Account. Funds in the CHIPS Prefunded Balance Account are held for the joint benefit of all funding participants and the disposition of the funds are subject to the CHIPS Rules.

Normal, High, or Urgent Payment Messages

Participants have the option to designate any payment message as normal, high, or urgent. the CHIPS service is designed to prioritize the release of payment messages based on the designation. Specifically, urgent payment messages are released before high messages, and high payment messages are released before normal payment messages. All payment messages received without a preference designation are treated as having normal priority.⁴⁰

A participant may designate any portion or the entire amount it has added to its supplemental position as a "reserved supplemental position" to be used exclusively for the settlement and release of its urgent and preferred payment messages. Alternatively, a participant may request

³⁷ See CHIPS Rules 2(c), 13(a).

³⁸ CHIPS Rule 12(e).

³⁹ CHIPS Rule 12(e)(1). At present, the multiple is two times the opening primary position until 3:00 p.m. ET, at which time the multiple is increased by a predetermined factor specific to each participant that is tailored to maximize the flow of payment messages through the CHIPS service. The factor is reviewed annually and takes into account the participant's average unresolved positions at 3pm.

⁴⁰ CHIPS Rule 13(a)(1)(B).

the use of functionality that automatically reserves the portion of the participant's supplemental position that is eligible to be reserved in the amount of any unreleased urgent payments that the participant has sent to the CHIPS service.

Accounting

Until the CHIPS service closes for the delivery of new payment messages, the CHIPS service maintains a separate record of each participant's current primary position and its current supplemental position. When a payment message is settled by deducting an amount from the sending participant's current primary position, the receiving participant's current primary position is increased by an identical amount. Similarly, when a payment message is settled by deducting an amount from the sending participant's current supplemental position, the receiving participant's current supplemental position is increased by an identical amount.⁴¹ The CHIPS service ensures that neither of these positions ever falls below zero and that the maximum limits on these positions are not breached.⁴²

The sum of a participant's current primary position and its current supplemental position is its "combined position."⁴³ Because it is the sum of two positive numbers, this combined position cannot fall below zero. When the end-of-day closing procedure commences, however, the CHIPS service combines the primary and supplemental positions into the combined position and stops tracking separate primary and supplemental positions.⁴⁴

Withdrawals

No participant has the right to withdraw any amount from the CHIPS Prefunded Balance Account. Instead, a participant desiring a payout of a portion of its position must make a request to PayCo. If the request is consistent with the CHIPS Rules, PayCo, as agent for all funding participants, may then transfer funds to that participant from the CHIPS Prefunded Balance Account.⁴⁵

Under the CHIPS Rules, a participant may never request a withdrawal of its primary position. The amount of a participant's current supplemental position, however, may be withdrawn during the CHIPS operating day. If a participant is using Early Release,⁴⁶ it may request to withdraw all or a portion of the current supplemental position.⁴⁷ If a participant is not using Early Release, then it may only request to withdraw that portion of the current supplemental position that is less than or equal to the amount of supplemental transfers the participant has made to the CHIPS

⁴¹ CHIPS Rule 13(b).

⁴² CHIPS Rule 13(a)(1)(A).

⁴³ CHIPS Rule 12(d)(2).

⁴⁴ CHIPS Rule 13(c)(1).

⁴⁵ CHIPS Rule 12(f)(2).

⁴⁶ Early Release is a feature that PayCo introduced to the CHIPS service so CHIPS participants that wish to more actively manage their liquidity can do so. PayCo can enable and disable the Early Release capability for individual participants, as well as at the system level, if circumstances require.

⁴⁷ As of August 2024, 19 CHIPS participants have enabled Early Release.

Prefunded Balance Account.⁴⁸ For example, if a participant has deposited \$1 million to the CHIPS Prefunded Balance Account, resulting in a supplemental position of \$1 million dollars than the participant may request a withdrawal of its supplemental position up to \$1 million dollars; this is true even if the participant receives payment messages that results in its current supplemental position exceeding \$1 million, the participant may request PayCo to send it no more than \$1 million from the CHIPS Prefunded Balance Account. Likewise, a participant that has not contributed any supplemental funding to the CHIPS Prefunded Balance Account and has not signed up for Early Release but that received CHIPS payments resulting in a current supplemental position may not request PayCo to send it any amount from the CHIPS Prefunded Balance Account.

Treatment and Status of Unreleased Payment Messages

Although nearly all of the average 542,000 payment messages received each day are settled before the CHIPS service closes for the receipt of payment messages, a small number of payment messages (currently averaging 59 payment messages that are worth an average aggregate amount of about \$6.8 billion) may remain unreleased at that time.⁴⁹ At the close of business, the CHIPS service takes the following actions: (i) cancels any payment messages that remain unreleased because the receiving participant did not prefund its opening position requirement and send a payment;⁵⁰ and (ii) nets, sets off, and releases as many of the remaining payment messages as possible, without regard for any participant's maximum combined position (i.e., the maximum combined position restraint is removed, although the minimum combined position limit remains).⁵¹ This process occasionally releases a few additional payment messages. Immediately following this procedure, the CHIPS service calculates a multilateral net balance for each participant based upon the remaining unreleased payment messages without actually netting, setting off, or releasing those payment messages.⁵² The resulting multilateral net balance for each participant (debit or credit) is combined with that participant's combined position (which is always zero or greater) to calculate the participant's closing position.⁵³ Each participant then receives an administrative message from the CHIPS service advising it of its closing position; a negative closing position is a "closing position requirement."⁵⁴ In 2023, the aggregate of these closing position requirements averaged \$4.3 billion, or around 0.24% of the average operating day's total value.

Each participant with a closing position requirement has 30 minutes from the time it is notified of the closing position requirement to send a Fedwire funds transfer in the amount of its closing

⁴⁸ CHIPS Rule 12(f)(1).

⁴⁹ Based on 2023 CHIPS activity.

⁵⁰ The CHIPS service will not release a payment to a participant on any day until it has prefunded its initial opening position requirement and sent a payment. CHIPS Rule 2(c)(2)(B).

⁵¹ CHIPS Rule 13(c)(1).

⁵² CHIPS Rule 13(c)(2).

⁵³ *Id.*

⁵⁴ *Id.*

position requirement to the CHIPS Prefunded Balance Account.⁵⁵ Once all funds transfers from participants with closing position requirements have been received in the CHIPS Prefunded Balance Account, the remaining unreleased CHIPS payment messages are netted, set off, and released.⁵⁶ Following this process each of the participants that provides a closing position will have a zero final position on the CHIPS ledger. the CHIPS service then sends each participant that has a positive final position a Fedwire funds transfer in the amount of its final position from the CHIPS Prefunded Balance Account.⁵⁷

Although each participant with a closing position requirement is expected to send a Fedwire funds transfer in the amount of that requirement to the CHIPS Prefunded Balance Account, it is possible that a participant may be unable to do so in a timely manner. In that case, participants' closing positions are recalculated using the available balances as adjusted by the addition of amounts from the participants that have paid their closing position requirements during the final funding phase.⁵⁸ The payment messages of any participant that did not send the required Fedwire funds transfers are included in this recalculation to allow the CHIPS service to release as many payment messages as possible.

Any payment messages that remain unreleased following this procedure expire, and the participant that sent each expired payment message is notified that it was not released.⁵⁹ Participants may be able to make such payments through other means (e.g., through Fedwire Funds Service or a correspondent).

Operating Hours

The CHIPS service opens at 9:00 p.m. Eastern time ("ET") on the calendar day preceding each operating day (even if the preceding calendar day is a holiday or weekend) and closes at 6:00 p.m. ET each operating day. For example, the CHIPS service opens at 9:00 p.m. ET on Sunday night for the Monday operating day. The CHIPS service does not operate on weekends or certain designated holidays.⁶⁰

⁵⁵ CHIPS Rule 13(c)(3). A supervisory message is sent to all participants at CHIPS cutoff. An end-of-day balance report provides the closing position requirements.

⁵⁶ CHIPS Rule 13(c)(3)(A)(i).

⁵⁷ CHIPS Rule 13(c)(3)(A)(ii). A participant can have a positive final position or no final position (i.e., the position is 0); it can never have a negative final position.

⁵⁸ CHIPS Rule 13(c)(3)(B).

⁵⁹ CHIPS Rule 13(d).

⁶⁰ The CHIPS holiday schedule is publicly available. See CHIPS Holiday Schedule, *available at* https://media.theclearinghouse.org/-/media/New/TCH/Documents/Payment-Systems/CHIPS_Holiday_Schedule_06-22-2022.pdf?rev=36d39c3790244523ab3df55dd2ac85da.

Applicable Law

New York U.C.C. Article 4-A

CHIPS Rule 3 provides that “[t]he rights and obligations of Participants and all other parties to a funds transfer of which a CHIPS payment message is a part, arising from the funds transfer or from these Rules, shall be governed by the laws of the State of New York.”

The principal New York law governing funds transfers is Article 4-A of the New York U.C.C. Article 4-A permits a funds transfer system operated by an association of banks, like PayCo, to establish funds- transfer system rules, such as the CHIPS Rules.

Under New York law:

A funds-transfer system rule may select the law of a particular jurisdiction to govern (i) the rights and obligations between participating banks with respect to payment orders transmitted or processed through the system, or (ii) the rights and obligations of some or all parties to a funds transfer any part of which is carried out by means of the system.⁶⁵

Unlike the CHIPS Participant Agreement which is a bi-lateral contract between PayCo and each participant, subject to certain conditions, funds transfer system rules under Article 4-A can affect another party to the funds transfer that does not consent to the rules.⁶⁶ Such rules may also be effective between participants even if they conflict with the Article 4-A unless the article expressly prohibits such conflict.

CHIPS Rule 3 selects New York law as the applicable law to funds transfers involving a CHIPS payment message. The New York U.C.C. provides that this choice of law through funds-transfer system rule is effective “whether or not that law bears a reasonable relation to the matter in issue.”⁶⁷ Thus, CHIPS payment messages are governed by Article 4-A.

New York U.C.C. Article 4-A treats each branch or separate office of a bank as a separate bank for purposes of funds transfers.⁶⁸ Each CHIPS participant must be a U.S. depository institution, a U.S. branch or agency of a foreign bank, or a foreign bank with an office in the U.S.⁶⁹ A Participant’s telecommunication line that connects to the CHIPS service must terminate at an office of the

⁶⁵ N.Y. U.C.C. § 4-A-507(3).

⁶⁶ N.Y. U.C.C. § 4-A-501(2). A funds-transfer system rule may also govern rights and obligations of parties other than participating banks using the system to the extent stated in certain specified sections of Article 4-A. *Id.*

⁶⁷ *Id.* New York law does in fact bear a reasonable relation to matters involving CHIPS payment messages because PayCo, which owns and operates the CHIPS service, is headquartered in New York City. The choice of New York law would therefore be effective under a more traditional choice-of-law analysis.

⁶⁸ N.Y. U.C.C. § 4-A-105(1)(b).

⁶⁹ CHIPS Rule 19.

participant located in the United States.⁷⁰ Since all CHIPS payment messages are sent and received by either a U.S. depository institution or a branch or office of foreign bank that is located in the U.S. and treated as a separate bank for funds-transfer purposes, both the sending bank and receiving bank of each CHIPS payment message are banks in the United States for purposes of the funds transfer.

Even where a participant sends a CHIPS payment message in execution of a payment order received from a foreign bank, U.S. law would generally apply to that payment order as well as to the CHIPS payment message because the receiving bank (i.e., the CHIPS sending participant) is located in the United States.⁷¹ Article 4-A provides that parties to a funds transfer may choose the applicable law by agreement regardless of whether the funds transfer bears a reasonable relationship to the jurisdiction selected⁷² and a funds-transfer system may select in its rules a law to govern the rights and obligations of some or all parties to a funds transfer⁷³. The CHIPS service selected the law of New York to govern.⁷⁴ Even in the absence of an enforceable agreement as to governing law, the rights and obligations between a sender and a receiving bank are governed by the law of the jurisdiction in which the receiving bank is located and the rights and obligations between the beneficiary's bank and the beneficiary are governed by the law of the jurisdiction in which the beneficiary's bank is located.⁷⁵ Accordingly, although foreign laws may be applicable to originators, beneficiaries, or other parties to a funds transfer involving a CHIPS payment message, they are not relevant to any issues regarding the rights or obligations of any CHIPS participant with respect to a CHIPS payment message and specifically do not affect the finality of CHIPS payments.

⁷⁰ CHIPS Rule 6.

⁷¹ See § 4-A-507

⁷² § 4-A-507(b).

⁷³ § 4-A-507(c).

⁷⁴ CHIPS Rule 3.

⁷⁵ § 4-A-507(a).

Standard IX: Money Settlements

The designated FMU conducts its money settlements in central bank money where practical and available. If central bank money is not used, the designated financial market utility minimizes and strictly controls the credit and liquidity risks arising from conducting its money settlements in commercial bank money, including settlement on its own books.¹⁶⁰

The CHIPS service observes Standard IX.

Each CHIPS payment message is settled by deducting the amount of the payment message from the sending participant's current primary position, current supplemental position, or both, and adding an identical amount to the receiving participant's corresponding current primary position, current supplemental position, or both. Under this arrangement, the current primary and supplemental positions of the participants are the asset through which CHIPS payment messages are settled. Thus, the settlement asset used to settle CHIPS payments is positions on the ledger.

Under the CHIPS Rules a participant's current primary or supplemental position at any point in time represents the amount that will become due to that participant following the close of business on that day if the participant does not send or receive any additional payment messages that are settled through additions to or subtractions from its current primary or supplemental positions. That obligation to pay, when and if it becomes due, is owed jointly by all of the funding participants and is payable solely from the balance in the prefunded balance account.

While the CHIPS service does not settle in central bank money, the legal and technical design of the CHIPS service ensures that its settlement asset, the positions on the CHIPS ledger, has no credit or liquidity risk. As discussed more fully in Standard I (Legal Basis) and Standard V (Collateral), this is achieved through the funding requirements and processing limits that are designed to ensure that the total amount of all the participants' current primary and supplemental positions is backed, dollar-for-dollar, by the balance in the CHIPS Prefunded Balance Account at the FRBNY. In this way, the positions on the ledger are supported one hundred percent by central bank money.

Prefunded Balance Account

The CHIPS Prefunded Balance Account is a special deposit account that FRBNY has opened on its books for the benefit of all CHIPS funding participants. As part of the agreement creating the prefunded balance account, the funding participants have designated PayCo as their exclusive

¹⁶⁰ 12 C.F.R. § 234.3(a)(9).

agent with respect to the account, giving PayCo exclusive control over the account. No funding participant or other CHIPS participant has a separate, individual claim against the Reserve Banks with respect to any balance in the account, and the Reserve Banks have no obligation to pay any amount under the agreement other than the amount that is then in the account, and even then, is the Reserve Banks are to pay only in accordance with PayCo's instructions.¹⁶¹

The remainder of the considerations in Regulation HH do not apply to the CHIPS service as the CHIPS service does not settle in commercial bank money.

¹⁶¹ CHIPS Rules 12(a)(5).